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THE TRANSPORTATION TOMORROW SURVEY

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A survey conducted for: the Regions of Durham, Halton, Hamilton-Wentworth, Peel and York; Metropolitan Toronto; Ministry of Transportation; Go Transit and the Toronto Transit Commission.

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GREATER TORONTO AREA



Figure 1.

DEMOGRAPHIC CHARACTERISTICS

REGION	HOUSE-HOLDS	POPULATION	LICENCED DRIVERS	VEHICLES
Metro	56.0%	52.4%	51.3%	45.8%
Durham	7.2%	7.8%	8.1%	9.0%
York	7.2%	8.5%	8.1%	10.7%
Peel	12.7%	14.2%	14.6%	16.5%
Halton	6.1%	6.5%	7.0%	7.8%
Hamilton-Wentworth	10.7%	10.4%	10.3%	10.2%

Note: columns may not total 100% due to rounding

Table 1.

Introduction

The amount of travel in the Greater Toronto Area is increasing at a time when the rate of population growth is declining. A greater proportion of the population working, an increasing number of smaller households, and increased vehicle ownership have all contributed to more travel.

The Transportation Tomorrow Survey has been an attempt to improve our understanding of:

- why people make trips;
- where people go;
- what means of transportation people use; and
- when these trips occur.

This bulletin provides some of the preliminary results associated with the Transportation Tomorrow Survey. It is the second bulletin in a series designed to inform participating agencies and the public of the progress of the survey analysis. The survey dealt with the Greater Toronto Area which includes the regions of Metropolitan Toronto, Durham, York, Peel, Halton, and Hamilton-Wentworth (see figure 1).

As a first step it is important to have some knowledge of the characteristics of the Greater Toronto Area and the differences among various parts of the region.

Despite the relatively small geographical area of Metropolitan Toronto, the general information contained in Table 1 clearly demonstrates that Metro has the largest percentage of vehicles and more than half the population, households and licenced drivers. Nonetheless, the vast majority of the growth in both population and households is now taking place in the regions surrounding Metro Toronto.

PERCENTAGE OF POPULATION IN THE LABOUR FORCE

Region	Full Time (%)	Part Time (%)	Total (%)
Metro	48.3	7.0	55.3
Durham	42.5	7.7	50.2
York	44.2	7.4	51.6
Peel	48.0	6.9	54.9
Halton	42.9	8.7	51.6
Hamilton -Wentworth	38.6	8.4	47.0

Table 2.

Another interesting fact is that about 15% (1 out of 7) of all employed persons work part time. In the Region of Hamilton-Wentworth part time workers account for almost 18% of the local work force. Characteristics of part time work make it more difficult to forecast time of travel and the number of trips per day.

DRIVERS AND VEHICLES

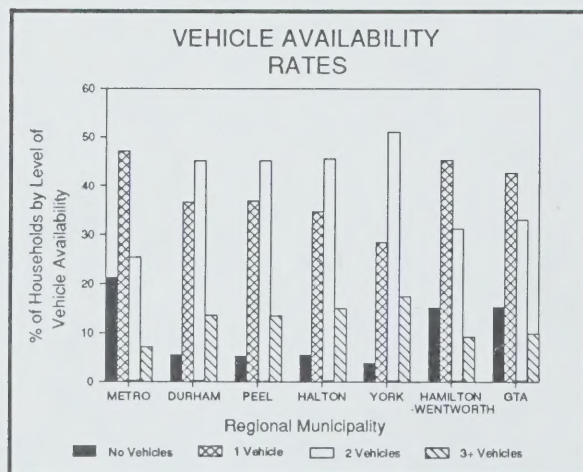


Figure 3.

Labour Force Participation

Travel to work is the single most important reason why people make trips. Trips to and from work account for almost 44% of all trips made on a given weekday.

The percentage of the population working varies little from region to region. All six regions have approximately 50% of their population employed, as illustrated in Table 2. The largest difference exists between Hamilton-Wentworth (47.0%) and Metro Toronto (55.3%). In Ontario the average percentage of the population that is in the labour force is 52.8%, while the average figure for Canada is 49.8%.

Automobile Availability

Vehicle availability is an economic variable that provides an indication of the number and type of trips that are made in a given study area. Figure 3 provides vehicle availability rates for all six regions in the Greater Toronto Area. These statistics indicate a higher level of reliance on the automobile in the rapidly growing suburban areas outside Metro Toronto.

There are over 217,000 households in the Greater Toronto Area that do not have access to an automobile. This ranges from a high of 20.9% in Metro Toronto, to a low of 3.4% in York Region. All four suburban areas have more two-car households than any other type of household.

Households and Automobiles

Automobile availability by household is an indication of the significance of automobiles in personal transportation. Figure 4 shows that households in the suburban areas surrounding Metro Toronto are primarily single and semi-detached houses. For example, 90.2% of the households in York Region are houses; the comparable figure for Metro Toronto is 56.5%. Figure 4 also shows that in the suburban areas either type of household has access to a greater number of vehicles. This translates into a heavier use of the personal automobile.

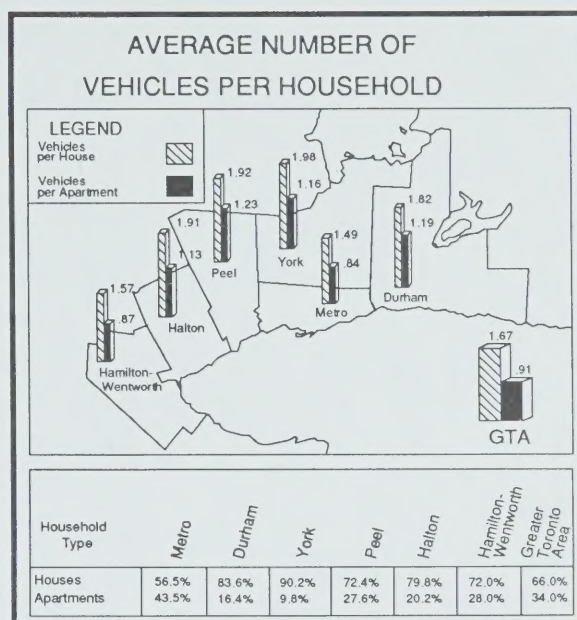


Figure 4.

Licences

Figure 5. shows the percentage of licenced drivers in each of the six regions.

The more densely populated urban centres, such as Metro Toronto and Hamilton-Wentworth, have the lowest percentage of licenced drivers. Each of these urban centres has both a well developed and heavily utilized transit system.

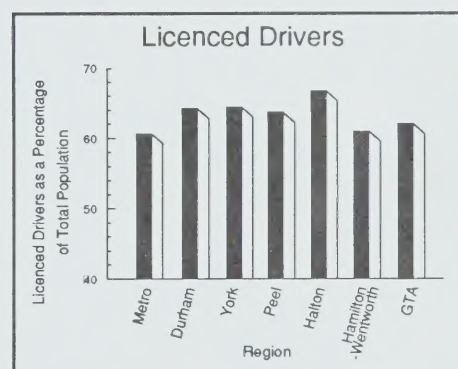


Figure 5.

TRIP BEHAVIOUR

Automobile or Public Transit?

The type (or mode) of transportation used by GTA residents varies widely between Metro Toronto and the other regions. Table 3 shows the proportion of trips made by each type of transportation. It is again clear that heavier use of transit occurs in the large urban centres. In Metro, public transit trips account for 25.9% of the nearly 192,000 trips surveyed. In contrast, only 8% of the over 27,000 trips surveyed in Halton are on transit.

Modal Split Information		
Region	% of Trips by Transit	% of Trips by Automobiles*
Metro	25.9	65.3
Durham	9.0	81.8
York	11.7	81.2
Peel	10.2	80.0
Halton	8.0	83.5
Hamilton-Wentworth	12.4	77.4
GTA	18.6	72.5

NB: All remaining trips are walk and bicycle
* Automobile trips include passengers

Table 3.

Trip Rate Facts

Throughout the Greater Toronto Area the average number of work trips per day per employed person is 1.7. This figure is less than two trips per worker because:

- 1.) some workers are absent due to vacation, sickness, etc.; and
- 2.) not all part time workers go to work every day.

The average number of non-work trips per day per person is 1.2.

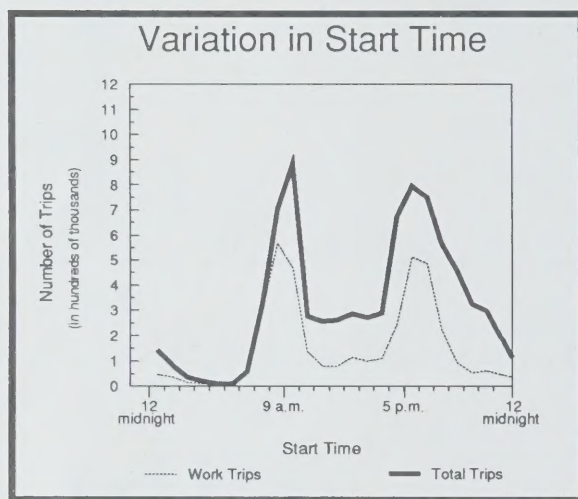


Figure 6.

Peak Hour Travel

The hourly variations of travel throughout the day reflect the basic purposes for which the trips are made. Figure 6. shows that a large percentage of both morning and afternoon peaks consist of work related trips. Of the over 370,000 trips surveyed approximately 51% occur during the peak periods. During peak times 61% of the trips are made by automobile, 24% by transit and the remaining trips are walk and bicycle (walk and bicycle trips are primarily to and from school).

Peak-hour travel data is also an important part of the planning process as it provides the maximum number of trips made at any given time during the day. This information is necessary to determine the capacity of either a road or a transit system.

SUMMARY

Transportation Planning

Knowledge of the population and its characteristics is essential for transportation planning. One of the first requirements is to compile an inventory of characteristics such as population, households, labour force, and car ownership. This data can be used to graphically display the character of the study area. After the data has been compiled, analysis can determine the relationship between each variable and the need for transportation facilities. Future needs can then be forecast. Reacting to changes in the relevant variables requires that data be collected at a number of different points in time.

Finally...

The proposed topic for the next bulletin is a more in-depth examination of the travel behaviour within the Greater Toronto Area. For further information on this bulletin or the Transportation Tomorrow Survey, please contact **The Transportation Demand Research Office, Ministry of Transportation**, Downsview, (416) 235-4082.



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